In the Specification

Please replace paragraph [0023] with the following substitute paragraph.

[0023] Sampling arm 44 supports a liquid sampling probe 46 mounted to a rotatable shaft 48 so that movement of sampling arm 44 describes an arc intersecting the sample tube transport system 36 and an aliquot vessel array transport system 50, as seen in FIG. 3. Sampling arm 44 is operable to aspirate liquid sample from sample tubes 40 and to dispense an aliquot sample into one or more of a plurality of vessels 52V in aliquot vessel array 52, as seen in FIG. 4, depending on the quantity of sample required to perform the requisite assays and to provide for a sample aliquot to be retained by analyzer 10 within environmental chamber 38. It is important in the present teaching that analyzer 10 be originally designed and configured so that space and other assay operational devices are also initially adapted to accommodate the addition of throughput limiting resources. For example, sample tube transport system 36 like seen in FIG. 5 is initially adapted to accommodate the addition of throughput limiting resources. ~~It is important in the present teaching that analyzer 10 be originally designed and configured so that space and other assay operational devices are also initially adapted to accommodate the addition of throughput limiting resources. It is also herein disclosed that analyzer 10 is initially configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources. To one skilled in the art, liquid sampling probe 46, sample tube transport system 36 and an aliquot vessel array transport system 50 are therefore initially adapted to accommodate the addition of throughput limiting resources.~~

In the Specification

Please replace paragraph [0027] with the following substitute paragraph.

[0027] The present invention is based on the discovery that analyzer 10 may be initially configured so that whatever operating resources are throughput limiting, those resources are adapted to be incrementally added, for example in a modular fashion, to analyzer 10 as the incoming assay demand increases. ~~Importantly, analyzer 10 is also configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput-limiting resources.~~ Importantly, analyzer 10 is also initially configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources. The throughput of analyzer 10 as seen in FIG. 5 is directly proportional to the number of independently operated reagent storage areas like reagent storage area 26. In particular, the throughput of analyzer 10 may be expressed as:

$$T = \frac{F \times N}{A};$$

in which,

T = Throughput (in assays per unit time) of assays analyzer 10 can complete in a unit of time,

F = Frequency at which probe 60P can access reagent in a cartridge 34,

N = Number of independent reagent storage areas like reagent storage area 26, and

A = Average number of reagent additions per assay.

In the Specification

Please replace paragraph [0029] with the following substitute paragraph.

[0029] A key feature of the present invention is the discovery that the throughput of analyzer 10 may be essentially doubled by adding only an additional reagent storage area 27 operating independently from the existing reagent storage area 26, while at the same time, the useage of cuvette ports 20 available for reaction vessels 24 is also increased. This is an example of how analyzer 10 is initially configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources. ~~so that additional ones of the cuvette ports on reaction carousel are utilized, thereby significantly increasing throughput. This is an example of how analyzer 10 is configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources.~~ Clearly, addition reagent aspiration and dispense arms 61A and 61B similar to arms 60A and 60B described above are also installed so as to transfer reagents between reagent storage area 27 and cuvette ports 20. This significant increase throughput of analyzer 10 by adding additional reagent storage area 27 and associated probes as shown in FIG. 6 and Table 2. In FIG. 6, aspiration and dispense arms 60B and 61B are shown as sharing a common translation mechanism for probes 60P2 and 61P2 for purposes of efficiency. This method of increasing the throughput of analyzer 10 is an important cost savings to an expanding clinical laboratory because the only additional expense is that associated with the additional reagent storage area 27 and its probes 61P1 and 61P2 as seen in FIG. 6. It may be estimated that the expense of installing reagent storage area 27 and its probes 61P1 and 61P2 is less than 10% of the original expense of analyzer 10.

In the Specification

Please replace paragraph [0030] with the following substitute paragraph.

[0030] An even further increase in the throughput of analyzer 10 may be achieved by the addition of a third reagent storage area 28 as seen in FIG. 7 and operating independently from the two existing reagent storage areas 26 and 27, again increasing usage of cuvette ports 20 available for reaction vessels 24. This further increase in throughput of analyzer 10 by adding additional reagent storage area 28 and at least one reagent aspiration and dispense arm 62 with probe 62P similar to arms 60A and 60B described above are also installed transfer reagents between reagent storage area 28 and cuvette ports 20. This method of increasing the throughput of analyzer 10 by initially configuring analyzer 10 such that the full number of available cuvette ports 20 is underutilized and then increasing the throughput of analyzer 10 with modular resource additions as the incoming assay demand increases is cost-effectively advantageous to an expanding clinical laboratory. The particular embodiment described here is illustrative of the more general teaching of the present invention in that clinical analyzer 10 may be initially configured so that whatever operating resources are throughput limiting, those resources are adapted to be incrementally added, for example in a modular fashion, to analyzer 10 as the incoming assay demand increases. It is important in such teaching that analyzer 10 be originally designed and configured so that space and other assay operational devices, for instance incoming and outgoing sample tube transport system 36 like seen in FIG. 5, are also initially adapted to accommodate the addition of throughput limiting resources. This is an example of how analyzer 10 is initially configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources. ~~This is an exemplary example as to how analyzer 10 is configured such that the operating resources which are not throughput limiting are also initially adapted to accommodate the addition of throughput limiting resources. It is clear that~~

~~other assay operational devices, for example, wash station 67, are also underutilized initially as were cuvette ports 20.~~